REMARKS

Claims 1-12 have been amended. Claims 1-12 are currently pending. On page 2 of the Office Action, figures 27-29 were objected to due to the specific values for "D1," "D2," "D3," and "D4" being unclear to the Examiner. In particular, the Examiner stated that any signal can only hold one state (low or high) at any given time such as the reset in figure 29. The Examiner further stated that "D1" and "D2" in figure 29 seem to simultaneously hold "a low and high."

Applicants respectfully submit that the specific values for "D1," "D2,"D3," and "D4" are clear. For example, regarding Figure 29, the specification clearly states that at time 1 and afterward, the functional device A inputs the analog audio D1, the functional device B inputs the analog video D2, and the functional device E outputs the MPEG stream. *See* specification of the present invention, page 30, lines 2-5.

In addition to the above-described data values, the "reset" is illustrated, which is equal to 1 at time 0 and equal to 0 at time 1.

Therefore, Figures 27-29 are clear as currently depicted. Applicants respectfully request withdrawal of the objection.

The Examiner also rejected claims 1-10 under 35 U.S.C. § 101 due to the claims allegedly stopping at the extraction of the validation item.

The Examiner rejected claims 1-10 under 35 U.S.C. § 101 due to the claims allegedly failing to reflect practical utility.

Applicants respectfully submit that the claims are directed to validation support. In other words, the practical utility lies in the production of the validation item, which is then utilized in validating operation of an apparatus. Therefore, the present invention produces a useful result, namely the validation item to allow operation of an apparatus to be validated.

According to the Examiner, the claims lack both a useful result (reflective of the described practical utility) and a tangible result (a result having real world value).

In the present invention, validation items (for example, as depicted in FIG. 24) that are necessary for an executable input/output sequence can be extracted. Therefore, the validation support apparatus can validate the apparatus to be validated easily and efficiently. *See* specification of the present invention, page 31, lines 21-25.

Applicants respectfully submit that the claims of the present invention clearly include a useful result, as reflective of the described practical utility, namely generating validation items to

create an input/output sequence known as a test pattern. Applicants further submit that the claims also clearly include a tangible result, for example, a result having real world value, namely, validation items that can be utilized in validating a normal operation of a Large Scale Integrated Circuit.

In light of the foregoing, Applicants respectfully request withdrawal of the rejection.

On page 3 of the Office Action, claims 11 and 12 were rejected under 35 U.S.C. § 101 due to the claims being directed to a program *per se*. Applicants have amended claim 11 to address the rejection. Therefore, withdrawal of the rejection is respectfully requested.

Regarding claim 12, Applicants respectfully submit that claim 12 is an apparatus claim and as such, is in appropriate and allowable form. Therefore, withdrawal of the rejection is respectfully requested.

Claim 7 was rejected under 35 U.S.C. § 112 due to lack of antecedent basis for the term, "the functional device" in line 3 of the claim. Applicants have amended claim 7 to address the rejection. Therefore, withdrawal of the rejection is respectfully requested.

On page 3 of the Office Action, claims 1-12 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Publication No. 2002/0138802 A1 (Firth).

Firth is directed to test circuitry for testing an integrated circuit. According to Firth, the integrated circuit is configurable to accept input data from stimulus scan cells and to provide output data to response scan cells. The test circuitry includes stimulus circuitry 305 for providing test data to the integrated circuit. *See* Firth, page 3, paragraph [0091]. *See also* Firth, Figures 3 and 4. According to Firth, the stimulus circuitry includes a number of sub-blocks, that is, sub-blocks 401-403, as depicted in Figure 4.

Applicants respectfully submit that independent claims 1, 11, and 12 are patentable over Firth, as Firth does not disclose each and every feature of the claims. In particular, for example, Firth fails to disclose extracting a combination of functional devices as a validation item from the validation item function, as recited in independent claim 1, for example.

On page 4 of the Office Action, the Examiner alleged that the components of the stimulus circuitry 305, that is, components 401, 402, and 403, as depicted in Figure 4, constitute the functional configuration information. Applicants respectfully submit that the components of the stimulus circuitry 305 are simply sub blocks included within the stimulus circuitry and are not extracted as a validation item. The components also do not perform extraction as in the present

invention. Rather, the components of the stimulus circuitry 305 simply operate to produce output, which is transmitted to a memory block. *See* Firth, page 3, lines 1-3 of paragraph [0091].

Therefore, independent claims 1, 11, and 12 are patentable over Firth, as Firth fails to teach each and every element of the claims. As dependent claims 2-10 depend from independent claim 1, the dependent claims are patentable over the references.

Claims 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Firth. Applicants respectfully submit that Firth does not teach or suggest extracting a combination of functional devices as a validation item, as the components of the stimulus circuitry do not perform extraction or an operation related to extracting as in the present invention.

For example, the librarian 401 assembles a string defining the sequence of primitives required for a test and transmits the information to the address generator 402, which generates the correct traversal order for the memory rows and columns. Then, the result is transmitted to the dictionary to allows the primitives to be expanded to include the full width data strings for each write operation. *See* Firth, paragraph 0102.

Therefore, Firth does not provide a suggestion of the extraction feature of the present invention.

Applicants further submit that Firth does not disclose or suggest other features of the claimed invention. For example, the "data from the stimulus scan cells" of Firth is merely a test data to be input into the memory 300 and cannot be equated with the functional configuration information on the functional devices and connections among the functional devices as recited in the amended claims 1, 11, and 12.

The "original input" at line 9 of paragraph [0003] of Firth, which is equated by the Examiner with the validation item function of the present invention, is the same as the "data" at line 4 of paragraph [0003]. Firth teaches that the data is fed to the stimulus scan cells 10. There is, however, no disclosure in Firth that the data is created based on the functional configuration information in the device illustrated in Figure 1, as recited in the amended claims 1, 11, and 12.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 8/16/06

By: _____
Reginald D. Lucas
Registration No. 46,883

1201 New York Avenue, NW, 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501